Alaska Industrial Development and Export Authority

AIDEA/AEA

Alaska Energy Authority

February 17, 2005

Howard Nelson, President
Levelock Village Council
P.O. Box 70
Levelock, AK 99625

Dear Mr. Nelson:

The Alaska Energy Authority (AEA) began work on a conceptual design report for Levelock energy projects in the fall of 2004. The scope of the report includes an assessment of and recommendations for upgrading the community's fuel storage, power generation and electrical distribution facilities. The design engineer, John Dickerson of Alaska Energy and Engineering (AE&E) and I met with community representatives and residents on September 22, 2004, to discuss the community's energy needs. I have attached John's trip report for your review.

I recently found population data on the Department of Labor website which indicate that Levelock's population has dropped from 122 in 2000 to 57 in 2004. This is important because the Denali Commission has a policy that addresses population change: the April 2004 Investment Policy. I have attached a copy for your reference.

Please send me your best estimate of population change in Levelock over the next ten years, as well as the basis for your estimate. Any information you can provide on other factors that may impact energy use, such as a proposed fish processing plant, would also be helpful.

During our site visit, we discussed the possibility of a significant local cash match for the energy projects requested by the Council. The Council members present said that the Community Development Quota program may have funds available to Levelock for such projects. If the population data are accurate, I anticipate that a significant match will be necessary to obtain approval and funding of the proposed projects from the Denali Commission.

I look forward to working with you and other Council members on this project.

Sincerely,

David Lockard

David Lockard, P.E.

Enclosures: 9/30/04 Trip Report and cover letter from John Dickerson
April 2004 Denali Commission Investment Policy

cc: Kathy Prentki, Energy Program Manager, Denali Commission, w/out attachments
Rayna Swanson, RuralCap Liaison, Denali Commission, w/out attachments
John Dickerson, Alaska Energy and Engineering, w/out attachments
Dan Salmon, utility management consultant
Project file

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Denali Commission Investment Policy

April 2004

Objective

The Denali Commission (Commission) is committed to accelerating the building of sustainable infrastructure in rural Alaska to enhance the health and safety of rural residents and to provide the underpinnings for economic opportunity. The Commission will invest the limited funds with which it is entrusted in the most conscientious and sustainable manner possible with the objective of maximizing the benefits to rural Alaskans.

General Policy

Commission investments are directed by federal law, by the Commission's Guiding Principles and by specific allocation decisions made by the Commission. Infrastructure needs of rural Alaska are enormous compared to available funding, thus, it is imperative that each dollar be invested in a way that will maximize the sustainable long term benefits to Alaskans.

The Commission will promote investment in infrastructure where the promise of sustainability (facility and services) can reasonably be demonstrated both now and in the future. Infrastructure sustainability can be enhanced by adapting available technology and appropriately sizing facilities to meet the particular needs and circumstances of communities.

Factors which will influence investment decisions:

A. Imminent environmental threats
Facilities will be placed so as to be protected from imminent environmental threats such as flooding and erosion. Long term investments generally will not be made in areas that are subject to imminent environmental threats.

B. Priority to be placed on needs of existing communities

The Commission will give priority to the critical infrastructure needs of existing communities before considering proposals to create new communities unless there is a congressionally directed relocation of an existing community.

C. Regional support

The Commission recognizes that borough and local governments promote equity among Alaskans and that the existence of a state-chartered government increases the probability that basic infrastructure and services provided with Denali Commission funds will be sustained over the long term. The Commission also recognizes that other regional organizations share both responsibility and capacity to contribute to sustainability. Consistency with a regionally approved plan is a factor lending strength to investing in a particular project.

D. Proximity/access to existing services and/or facilities

In determining the need for a new facility, a careful evaluation of existing access to services or facilities will be performed. Where the needs of two or more communities in close proximity to one another can be adequately and more cost effectively served by a single facility, that option will be selected over separate facilities for each community. Investments will be made where critical unmet needs are demonstrated.

E. Renovation versus new construction

Where existing facilities can be renovated or expanded to adequately meet community needs at significantly lower life-cycle costs than new construction, that option will be favored.

F. Population trends

Infrastructure will be sized to meet needs that can reasonably be projected over the design life of the project. If population is increasing, appropriate excess capacity will be provided to accommodate growth. Decreasing population may result in a smaller facility then the current population would dictate. For communities with populations declining 20% or greater over a 10 year census period and where there is indication such trends will continue, special attention will be given to appropriate design and sizing of facilities.

G. Affordability

The Commission will evaluate proponents' capacities to afford the life-cycle costs associated with sustaining proposed services and/or facilities, either through user fees, industry support, government transfer payments or grants from private entities.

H. Per capita investment

While there are many factors which may explain extreme variations in per capita investment in communities, the Commission will compile and review this data to ensure that there is reasonable equity in the distribution of funds across all rural Alaska communities.

I. Unit cost

Unit cost of construction varies widely across the state for a number of reasons including the technology employed and/or designs utilized. High unit cost tends to work counter to project sustainability. Some of the variables impacting unit cost (project location, soil conditions, etc.) are not controllable, but many others are. The Commission will make every reasonable effort to control unit cost by working with award recipients through its Partners to ensure that the most appropriate technology and designs are applied.

J. Good faith

The long term sustainability of Commission investments is highly dependent on the good faith of the recipients of those investments. In evaluating potential investments the Commission will give priority to advocates who have historically demonstrated good faith in making and keeping financial commitments. Previous demonstrations of bad faith, particularly with previous state or federal investments or failure to pay taxes, may preclude additional investments.

Implementation

The Commission will consider all available information regarding each of the factors identified above and any other relevant information in making investment decisions. In cases where sustainability of an investment is questionable, the Commission, either directly or through its Partners, will work with project proponents to attempt to find workable solutions. It will be incumbent on requestors to provide pertinent information that is not otherwise available and to actively engage in the effort to develop workable solutions. Solutions may involve smaller scale or mobile facilities and may include multi-community or regional management approaches. If no workable sustainable solution is apparent, the Commission or its Partners may suggest alternative means to access critical services.

Decisions regarding questionable investments will be made by the Commission's Chief of Staff. Any decisions made relative to this policy may be appealed first to the Federal Co-Chair and ultimately to the full Commission.

Alaska Energy and Engineering, Inc.
P.O. Box 111405
Anchorage, AK 99511-1405
Phone (907) 349-0100 Fax 349-8001

September 30, 2004

Mr. David Lockard, Project Manager
State of Alaska,
AIDEA/AEA Rural Energy Group
813 West Northern Lights Boulevard
Anchorage, AK 99503

15 pages total sent via e-mail

Re: Levelock Energy Infrastructure Investigation
9/22/04 Site Visit Trip Report

Dear Mr. Lockard:

On Wednesday September 22, 2004, David Lockard of the Alaska Energy Authority / Rural Energy Group (AEA/REG), John Dickerson of Alaska Energy and Engineering (AE&E) and Vince Webster of the Lake and Peninsula School District (LPSD) traveled to Levelock to meet with local residents and tour the community. The purpose of our site visit was to observe the existing energy related infrastructure and assess the fuel and power needs of the community.

We arrived in Levelock by plane at approximately 10:30 AM. Upon arrival we were met by Dan Salmon of the Igiugig Village Council and Iliamna Lake Contractors, who is acting as consultant to the Levelock Village Council (LVC). After a complete tour of the school mechanical building, power plant and all community bulk fuel facilities, we met with members of the LVC.

Significant Contacts:

Howard Nelson, President, Levelock Village Council, 287-3030
Jennie (Mary) Apokedak, Administrator, Levelock Village Council, 287-3030
Marvis Dobkins, Manager, Levelock Electric Cooperative, 287-3058
Brian Apokedak, Plant Operator, Levelock Electric Cooperative, 287-3058
Vince Webster, Facilities & Maintenance Director, LPSD, 246-4280
Dave McClure, Bristol Bay Housing Authority, 842-5956
Shane Carter, Yukon Fuel Co., 777-5576
Dan Salmon, project consultant, Igiugig Village Council, 533-3211

The following report includes information on :

- Local Power Generation and Distribution
- Generation Heat Recovery System
- Existing Fuel Storage Facilities
- Current Community Fuel Consumption
- Local Population Trends
- Planned Projects and Infrastructure Improvements
- Potential Village Tank Farm Site

Local Power Generation and Distribution:

The local diesel electric power plant and overhead power distribution system were constructed approximately 20 years ago. The plant is located in the center of town near the school. The building is a metal-sided, fiberglass batt insulated pre-engineered steel frame structure that appears to be well maintained and in good condition. The power plant and distribution system are owned and operated by the Levelock Electric Cooperative, a subsidiary of the Levelock Village Council. Overhead electrical distribution is 12.47kV 3-phase throughout the core of the community with 7.2kV single phase overhead extensions and 120/240V single phase overhead service drops.

Power plant generation and fuel use data was obtained from power plant operator's logs as well as from PCE reports (see attachments). The operator logs consist of three discreet observations per day from August 2003 through August, 2004. The log entries were typically recorded at approximately 8:30AM, Noon, and 6:30PM. Between the months of September, 2003 and April, 2004, weekly peak recorded loads for the community ranged between 60kW and 100kW with weekly minimum recorded loads between 30kW and 60kW. From May through August the weekly peak recorded load range was between 35kW to 75kW with weekly minimum recorded loads ranging between 15kW and 40kW. According to PCE power sales data, the average annual load for the community during fiscal year 2003 was 50kW, which would appear to correlate well with the operator log data.

There are a total of three generators installed in the power plant. Units #1 and #2 are John Deere model 6076A generators, each with a capacity of 130kW. Unit #1 has approximately 28,000 hours since its last major overhaul. Unit #2 had a complete overhaul in 1998 and now has approximately 18,000 hours. Unit #3 is a 100kW backup unit with approximately 28,000 total engine hours. Engine cooling is with two remote radiators located outside behind the power plant. Power generation is at 480V 3-phase with a step-up transformer bank for the 7.2kV/12.47kV distribution. The manual paralleling switchgear includes a section for each of the three generators.

Generation Heat Recovery System:

There is an existing heat recovery system installed in the Village power plant that serves the school, located approximately than 180' away. However, the power plant's existing engine cooling system is not designed to maximize generation heat recovery. According to LPSD maintenance superintendent Vince Webster the amount of heat received by the school has always been less than expected based on the school district's experience with generation heat recovery in other communities and has appeared to decrease on an annual basis based on increased school fuel consumption over time. The Levelock School has used an average of approximately 8,600 gallons of diesel annually for facility heating between 1999 and 2003. This is considerably higher than the average fuel consumption of other LPSD schools with properly functioning generation heat recovery systems. The high fuel use may be partially explained by the age, poor condition and additions/alterations to the original school heating system. However it also appears to verify the opinion of both school district and village personnel that the existing heat recovery system is not operating effeciently. Based on PCE fuel use records, it is estimated that the Village power plant rejected approximately 5,700 equivalent gallons of heating fuel to the engine cooling system during this past heating season (September 2003 through May 2004). Assuming an additional 25% reduction due to parasitic losses, the school's annual fuel use could be reduced by as much as 4,300 gallons with the installation of properly designed engine cooling and heat recovery systems in the Village power plant.

Existing Fuel Storage Facilities:

The existing fuel storage facilities are located at four separate sites. Tank farm numbers below correspond to the numbers assigned in the DOE database. Each individual facility was evaluated to determine specific needs and deficiencies. Tanks were visually examined to determine suitability for re-use. The following paragraphs summarize findings for each tank farm:

- ***Village Diesel Storage - Tank Farm (#1).*** The Village owns three tanks located near the power plant. This facility receives and stores virtually all of the diesel fuel imported into the community. The fuel is used for community power generation, heavy equipment operation, and space heating requirements throughout the community. All three tanks are ex-military domed end heavy wall lapped steel tanks that had previously been installed below ground. Two of the tanks have a capacity of 50,000 gallons each and the third has a capacity of 25,000 gallons. The tanks all have heavy surface rust and poor paint condition. They are supported directly on the ground within a shallow lined earthen berm dike that does not appear to be liquid tight. The tanks are connected by a combination of threaded and welded black steel pipe. A centrifugal transfer pump is used for bulk transfers of diesel to the Village tanker truck for delivery throughout the community and for filling heavy equipment. The tanks are barge-filled by dragging the barge

hose through town from the landing site, a distance of approximately 1,000 feet.

- ***School - Tank Farm (#2).*** The old school tank farm, formerly designated as DOE Tank Farm #2, consists of two vertical steel tanks with a total combined capacity of 31,500 gallons. These tanks are approximately 50 years old and were previously abandoned by the school. The old tanks were put back into service by the village to provide extra fuel storage during the construction of the new airport. There is still some residual fuel remaining in one of the tanks but they are no longer needed by the village. The old tanks are slated to be taken out of service again after all remaining fuel is removed. The new school tank farm is fully code compliant and consists of a single 12,000 gallon gross shell capacity horizontal skid mounted double wall tank in a lined timber tertiary containment dike. The tank is either truck-filled or filled directly from the barge hose. The fuel is used to provide space heat and emergency power generation for the school.
- ***Village Gasoline Storage - Tank Farm (#3 & #4).*** The Village owns three tanks located approximately 1,000 feet south of tank farm #1, near the bank of the Kvichak River. This facility receives and stores virtually all of the gasoline imported into the community. The gasoline is used for community retail dispensing. All three gasoline bulk storage tanks are 10,000 gallon BIA style vertical steel tanks. They are supported on wood frame platforms within a shallow lined earthen berm dike that does not appear to be liquid tight. There is no manifold, fill or distribution piping. The gasoline is gravity transferred by fuel hose to a 1,000 gallon dispensing tank located approximately 200 feet away, near the abandoned community store. The bulk tanks are barge-filled.

Current Fuel Consumption:

Fuel use records were obtained from the facility owners and fuel carriers for 2000 through 2003. The following table summarizes average consumption and existing storage capacity. All capacities are in gallons. Net capacity is calculated as 90% of the tank gross (shell) capacity.

CURRENT CONSUMPTION VERSUS EXISTING CAPACITY

Owner/Product	Average Annual Use	Existing Net Capacity	Existing Gross Capacity
LPSD/Diesel (1)	8,600	10,800	12,000
Village/Diesel (2)	78,000	112,500	125,000
Village/Gasoline	10,500	27,000	30,000
Existing Total	97,100	150,300	167,000

(1) New facility only - "old" tanks to be abandoned not included.

(2) Includes power generation, heavy equipment operation, village facility space heating and residential sales of #1 diesel.

Local Population Trends:

The State of Alaska Online Community Database shows that the population of Levelock has fallen from 122 residents in the year 2000 to a current State Demographer estimate of 71. This population trend raises concerns about the long term viability of the community if it were to continue. This issue was discussed at the community meeting. Howard Nelson mentioned that the population estimate of 122 in the year 2000 appeared to be excessive, either due to a miscount or to a temporary influx of people at that time. He did agree that the population has dropped over the past several years but attributed the decline to a combination of the depressed salmon fishery, lack of adequate housing, and several recent deaths in the community. The consensus of council members present was that the population of Levelock has stabilized and may now be increasing again. Six new HUD homes scheduled for construction in 2006 will likely encourage a further increase in population. According to Vince Webster the school population has been relatively stable over the past few years, with a current enrollment of 17 students, down from an enrollment of 22 in the year 2000.

Planned Projects and Infrastructure Improvements:

The Bristol Bay Housing Authority is planning for the construction of six HUD homes in Levelock for 2006.

The Village council recently commissioned Indian Valley International, Inc. to produce a study to determine the feasibility of a commercial fish and meat processing plant in Levelock. The study was funded in part with Mini-Grant Assistance funds through the DCED and the Denali Commission. Due to its status as a CDQ qualified community, the Village Council has also received $200,000 from the Bristol Bay Economic Development Corporation in matching funds for the design and construction of a fish plant. If constructed according to the preliminary design provided in the study, the plant would consume approximately 75kW of electricity when under full production. Due to the full paralleling capability of the power plant switchgear and the fact that processing will occur during the normally low-demand summer season, sufficient generation capacity should be available to power the processing plant. However, care will need to be taken in the design of the processing plant electrical system. Community brown-outs could occur during hard starts of large demand electrical equipment such as refrigeration compressors. Solid state soft start technology should be used in the starting circuitry of all electric motors of 5HP and greater to minimize the effect on the community power grid. Provisions could also be made in the power plant for the future installation of a switchgear feeder section dedicated to the processing plant. This would allow for additional isolation of the processing plant from the village power grid.

In conjunction with the fish plant, the Village Council is also actively pursuing funding for design and construction of a freight dock, boat ramp and boat storage facility on the Kvichak River.

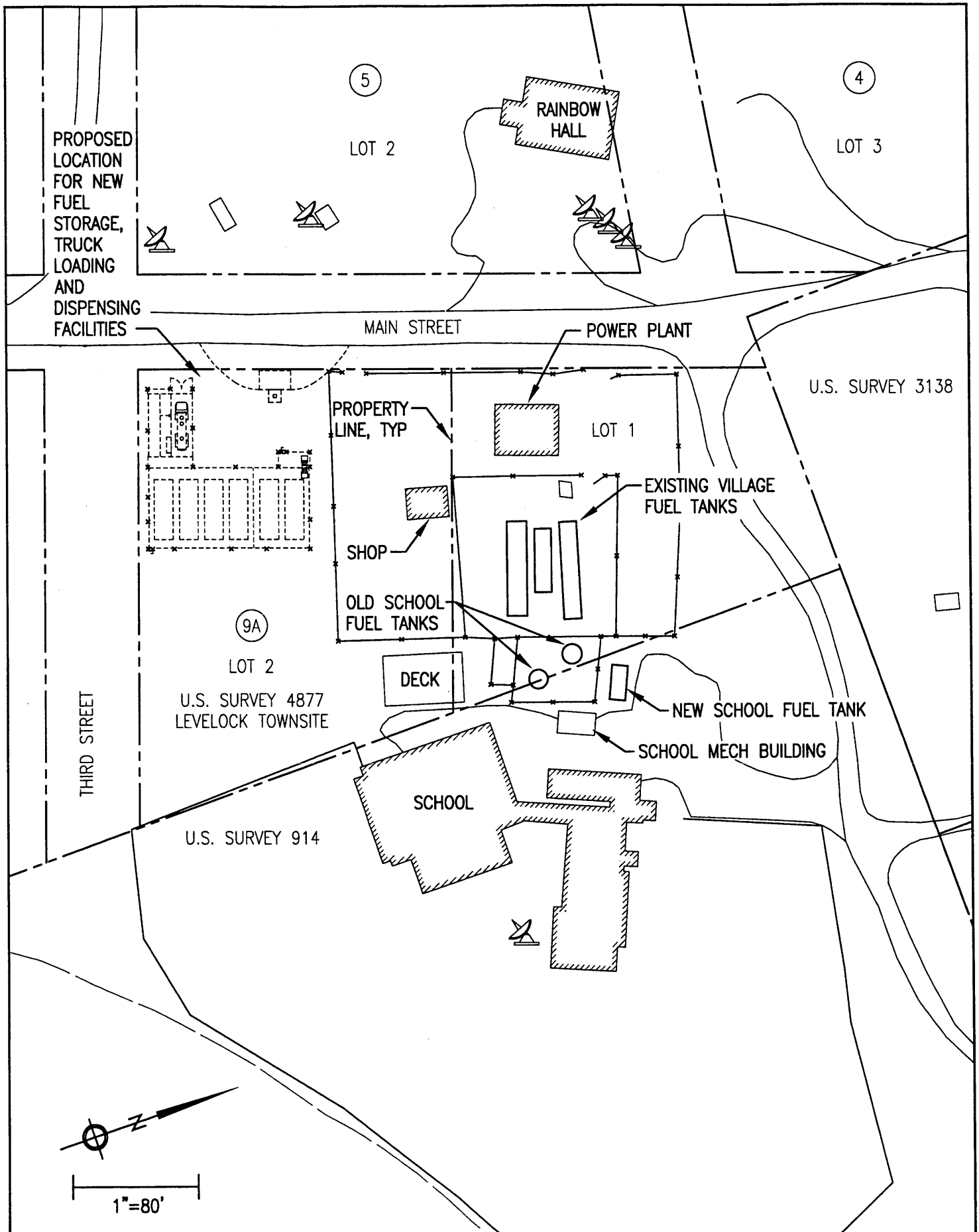
Proposed Village Tank Farm Site:

The village council expressed an interest in locating any potential new fuel storage facility in the same area as existing tank farm #1 and the power plant. A preliminary site plan was developed to show that a new facility could be located on the available village-owned property in this vicinity and meet all code separation and setback requirements (see attachments). According to preliminary data, both lots 1 and 2, block 9A are owned by the Village.

If you have any questions or identify any potential projects from this report, please contact me at my direct line of 336-8031 (phone) or 336-7527(fax).

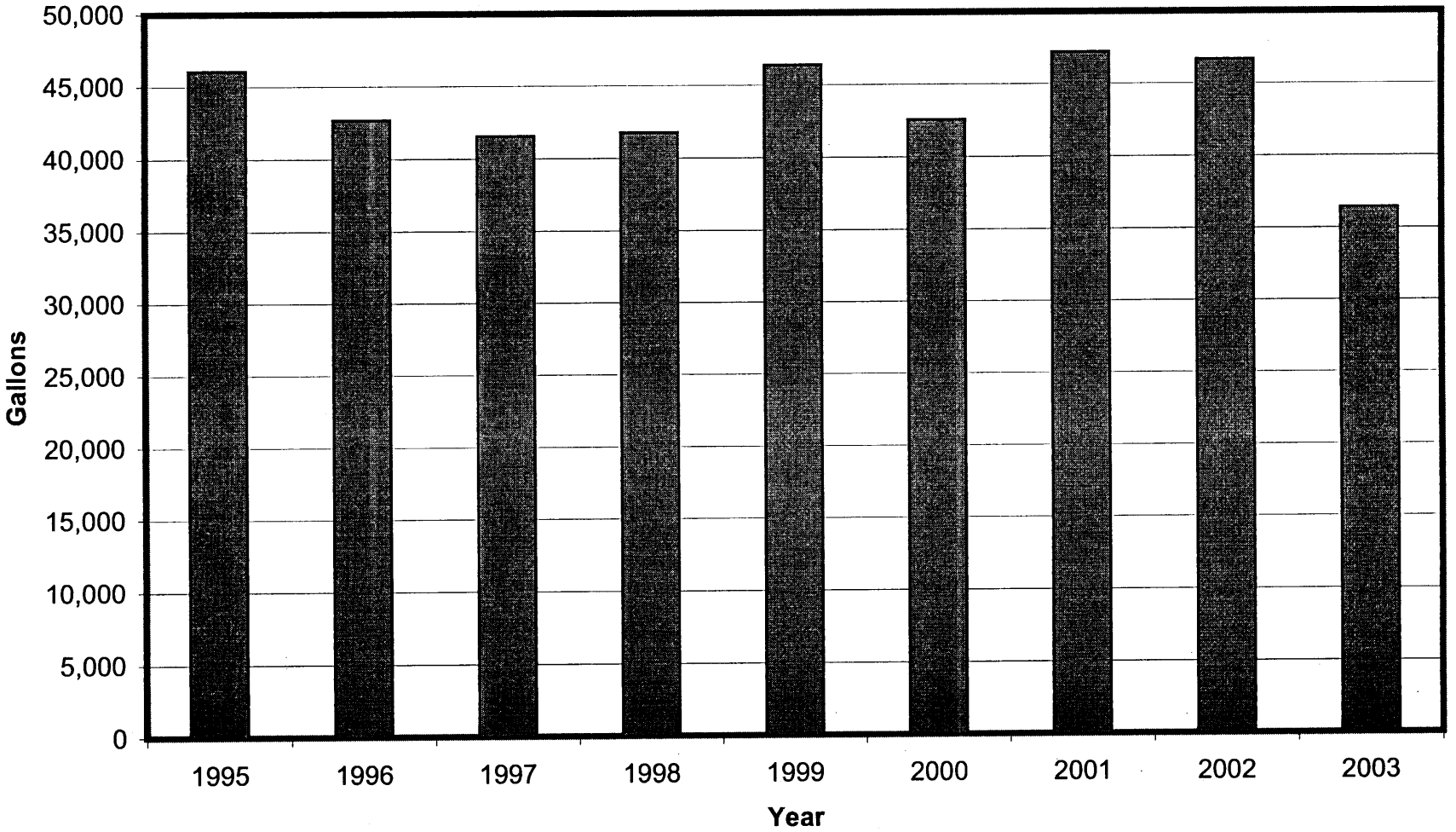
Sincerely,

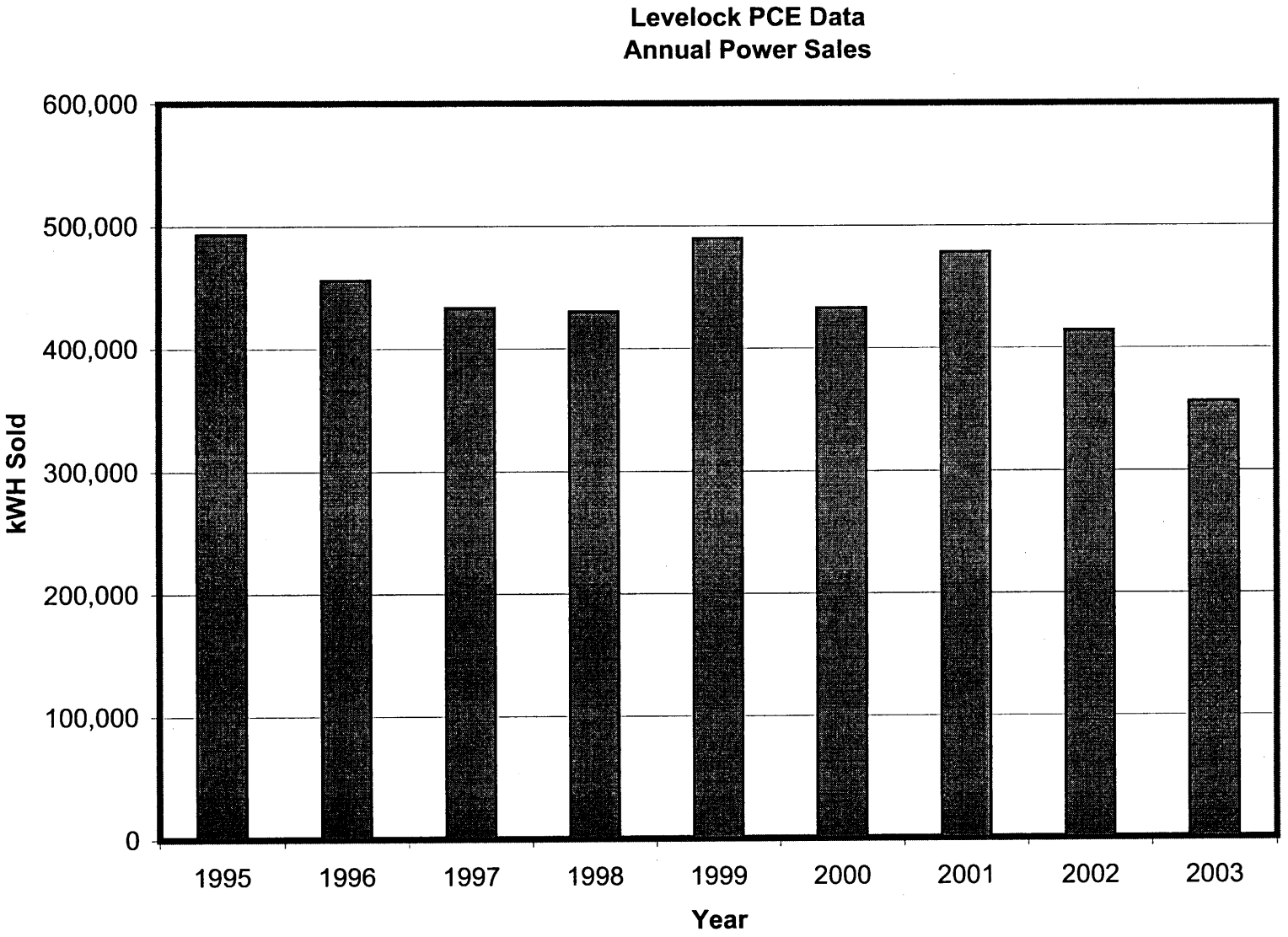
John Dickerson, Project Engineer
Alaska Energy & Engineering

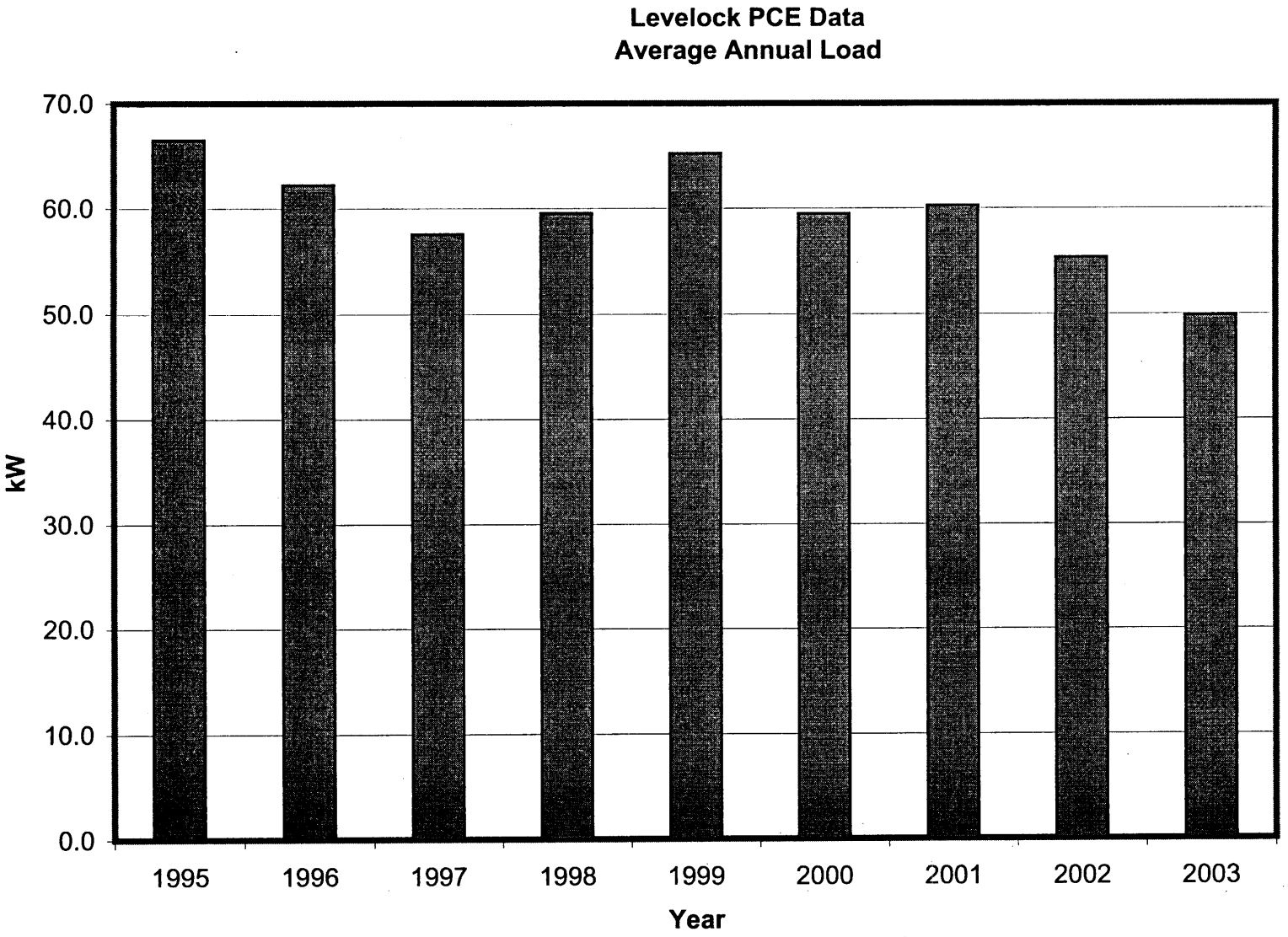


PROJECT: LEVELOCK ENERGY INFRASTRUCTURE UPGRADE PROJECT	DRAWN BY: JTD	SCALE: 1"=80'	State of Alaska Department of Community and Economic Development AIDEA/AEA Rural Energy Group 813 West Northern Lights Blvd. Anchorage, Alaska 99503 ALASKA ENERGY AUTHORITY
	DESIGNED BY: BCG	DATE: 9/30/04	
TITLE: POTENTIAL TANK FARM LOCATION	FILE NAME: LEVEL-SITE	SHEET: M1 OF: 1	

Levelock PCE Data
Power Generation Fuel Use




Levelock PCE Data
Annual Power Sales
600,000
500,000
400,000
300,000
200,000
100,000
0
kWH Sold
1995
1996
1997
1998
1999
2000
2001
2002
2003
Year


Levelock PCE Data
Average Annual Load
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
kW
1995
1996
1997
1998
1999
2000
2001
2002
2003
Year

Levelock PCE Data

Fiscal Year	Month	Fuel Used	Fuel Cost	Non Fuel Expenses	KWH Gen	KWH Sold Total	kWh gen/gal	kWh sold/gal	Average KW Load
1995	July	2744	$3,266	$6,070	34860	28501	**12.7**	**10.4**	46.9
	August	3264	$3,885	$10,753	40180	34269	**12.3**	**10.5**	54.0
	September	3862	$4,595	$13,249	47880	41288	**12.4**	**10.7**	66.5
	October	4149	$4,937	$5,497	52220	43776	**12.6**	**10.6**	70.2
	November	4980	$4,877	$16,238	51940	42515	**10.4**	**8.5**	72.1
	December	4516	$5,374	$14,080	59360	49705	**13.1**	**11.0**	79.8
	January	4490	$5,343	$9,279	58380	50462	**13.0**	**11.2**	78.5
	February	3909	$4,652	$5,094	48580	43486	**12.4**	**11.1**	72.3
	March	4294	$5,110	$13,330	54880	47574	**12.8**	**11.1**	73.8
	April	3964	$4,718	$26,392	48860	48289	**12.3**	**12.2**	67.9
	May	3395	$4,040	$11,579	53620	36854	**15.8**	**10.9**	72.1
	June	2504	$2,980	$7,144	32060	26537	**12.8**	**10.6**	44.5
		46,071	**$53,776**	**$138,705**	**582,820**	**493,256**	**12.7**	**10.7**	**66.5**
1996	July	2686	$3,288	$5,733	32340	26395	**12.0**	**9.8**	43.5
	August	3093	$3,785	$5,800	39200	35069	**12.7**	**11.3**	52.7
	September	3700	$4,529	$12,259	47740	40033	**12.9**	**10.8**	66.3
	October	3965	$4,853	$9,007	49420	45487	**12.5**	**11.5**	66.4
	November	3873	$4,741	$686	61040	39627	**15.8**	**10.2**	84.8
	December	4087	$5,002	$11,711	50260	42430	**12.3**	**10.4**	67.6
	January	3987	$4,880	$9,338	50260	42315	**12.6**	**10.6**	67.6
	February	3778	$4,624	$10,779	49420	40061	**13.1**	**10.6**	73.5
	March	4158	$5,090	$7,120	49000	42938	**11.8**	**10.3**	65.9
	April	3655	$4,474	$12,694	44660	38620	**12.2**	**10.6**	62.0
	May	3240	$3,966	$12,435	40740	36404	**12.6**	**11.2**	54.8
	June	2465	$3,057	$6,176	30380	26290	**12.3**	**10.7**	42.2
		42,687	**$52,289**	**$103,738**	**544,460**	**455,669**	**12.8**	**10.7**	**62.3**
1997	July	2596	$3,193	$6,163	28420	23928	**10.9**	**9.2**	38.2
	August	2592	$3,188	$13,708	29960	28176	**11.6**	**10.9**	40.3
	September	3525	$4,336	$6,394	43540	39069	**12.4**	**11.1**	60.5
	October	3744	$4,605	$9,508	45920	39909	**12.3**	**10.7**	61.7
	November	3860	$4,748	$11,358	46900	40174	**12.2**	**10.4**	65.1
	December	4089	$5,030	$8,727	50260	42884	**12.3**	**10.5**	67.6
	January	4394	$5,405	$10,654	53760	45639	**12.2**	**10.4**	72.3
	February	3864	$4,753	$14,059	49140	40551	**12.7**	**10.5**	73.1
	March	3790	$4,662	$7,509	46200	39474	**12.2**	**10.4**	62.1
	April	3654	$4,494	$7,346	43960	37826	**12.0**	**10.4**	61.1
	May	3224	$3,966	$9,105	40180	34550	**12.5**	**10.7**	54.0
	June	2252	$2,770	$9,290	25200	21053	**11.2**	**9.3**	35.0
		41,584	**$51,149**	**$113,822**	**503,440**	**433,233**	**12.1**	**10.4**	**57.6**

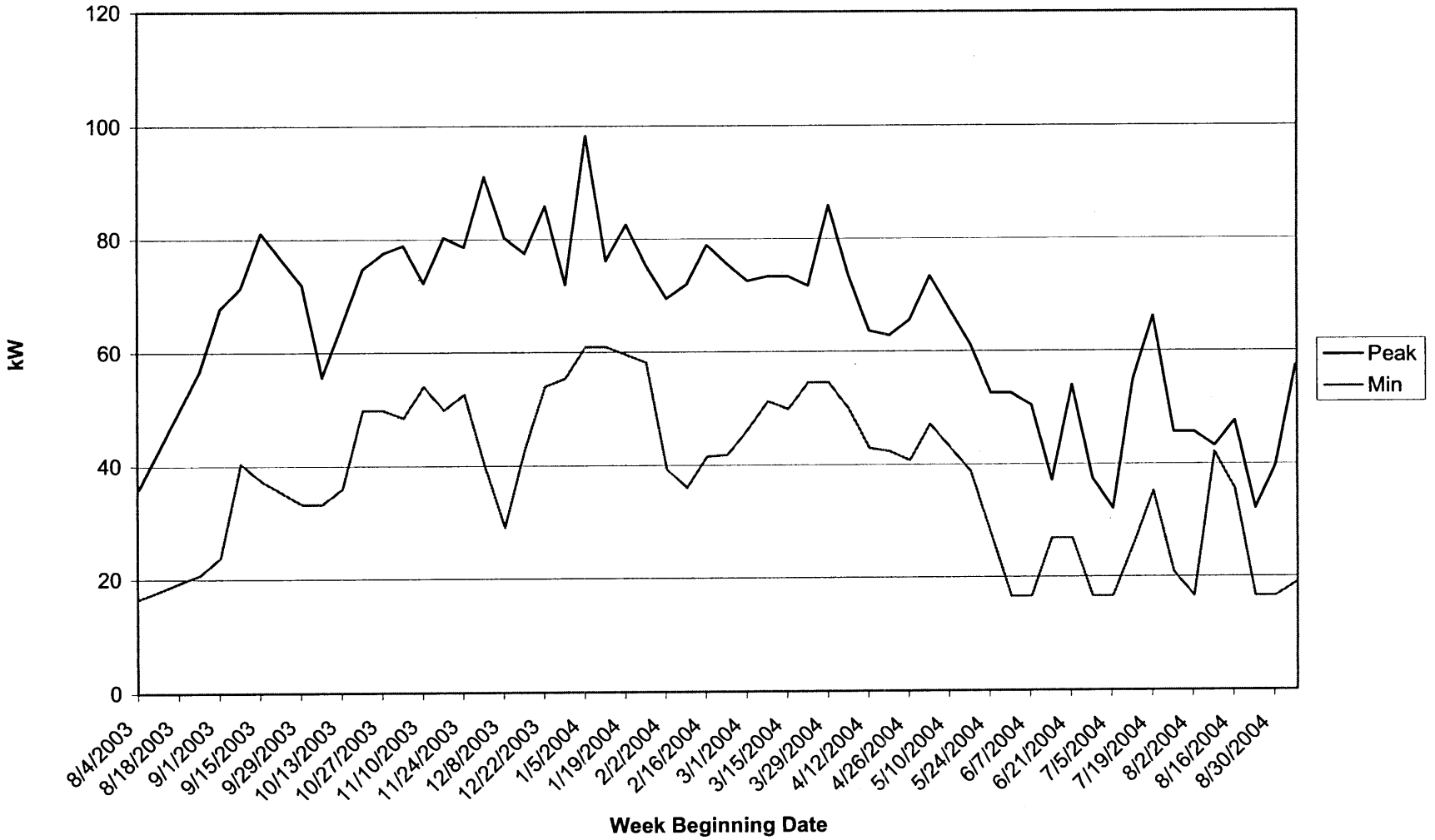
Levelock PCE Data

Fiscal Year	Month	Fuel Used	Fuel Cost	Non Fuel Expenses	KWH Gen	KWH Sold Total	kWh gen/gal	kWh sold/gal	Average KW Load
1998	July	2207	$2,714	$8,727	26180	21396	**11.9**	**9.7**	35.2
	August	2592	$3,188	$13,708	29960	24875	**11.6**	**9.6**	40.3
	September	3053	$4,493	$9,574	42000	35517	**13.8**	**11.6**	58.3
	October	3841	$4,725	$12,494	47460	39615	**12.4**	**10.3**	63.8
	November	3872	$4,762	$5,670	50400	42075	**13.0**	**10.9**	70.0
	December	4325	$5,319	$13,726	54740	44916	**12.7**	**10.4**	73.6
	January	4311	$5,302	$7,837	54460	43418	**12.6**	**10.1**	73.2
	February	3969	$4,882	$8,826	48300	37436	**12.2**	**9.4**	71.9
	March	4047	$4,978	$6,880	50400	41555	**12.5**	**10.3**	67.7
	April	3762	$4,627	$12,593	46480	39729	**12.4**	**10.6**	64.6
	May	3481	$4,281	$15,701	42560	36163	**12.2**	**10.4**	57.2
	June	2317	$2,847	$6,707	27860	23312	**12.0**	**10.1**	38.7
		41,777	**$52,119**	**$122,443**	**520,800**	**430,007**	**12.5**	**10.3**	**59.5**
1999	July	2763	$3,390	$11,156	34300	29152	**12.4**	**10.6**	46.1
	August	2698	$3,319	$11,752	35280	29890	**13.1**	**11.1**	47.4
	September	3740	$4,600	$9,174	44800	38033	**12.0**	**10.2**	62.2
	October	4018	$4,929	$8,822	50120	41680	**12.5**	**10.4**	67.4
	November	3881	$4,774	$6,567	49840	42352	**12.8**	**10.9**	69.2
	December	4481	$5,512	$38,621	55720	52921	**12.4**	**11.8**	74.9
	January	4661	$5,733	$12,922	59920	51247	**12.9**	**11.0**	80.5
	February	4181	$5,143	$11,825	56700	40992	**13.6**	**9.8**	84.4
	March	4487	$5,519	$11,825	55020	51309	**12.3**	**11.4**	74.0
	April	4123	$5,071	$11,825	51240	44580	**12.4**	**10.8**	71.2
	May	4637	$5,703	$11,825	46620	39349	**10.1**	**8.5**	62.7
	June	2726	$3,353	$11,825	31500	28470	**11.6**	**10.4**	43.8
		46,396	**$57,046**	**$158,140**	**571,060**	**489,975**	**12.3**	**10.6**	**65.3**
2000	July	2453	$3,017	$14,213	30240	24969	**12.3**	**10.2**	40.6
	August	2989	$3,677	$9,976	31220	25705	**10.4**	**8.6**	42.0
	September	3149	$3,873	$6,569	40600	36095	**12.9**	**11.5**	56.4
	October	3723	$4,580	$12,973	44940	36454	**12.1**	**9.8**	60.4
	November	3912	$4,812	$11,977	49000	41314	**12.5**	**10.6**	68.1
	December	4271	$5,254	$25,124	54180	45959	**12.7**	**10.8**	72.8
	January	4528	$5,208	$6,569	56700	37368	**12.5**	**8.3**	76.2
	February	3778	$4,345	$11,586	46340	46820	**12.3**	**12.4**	66.6
	March	3906	$4,804	$11,586	47740	31385	**12.2**	**8.0**	64.2
	April	3658	$4,207	$11,586	44380	38867	**12.1**	**10.6**	61.6
	May	3434	$3,949	$11,038	40880	36462	**11.9**	**10.6**	54.9
	June	2785	$3,481	$10,835	35980	31334	**12.9**	**11.3**	50.0
		42,586	**$51,207**	**$144,033**	**522,200**	**432,732**	**12.3**	**10.2**	**59.5**

Levelock PCE Data

Fiscal Year	Month	Fuel Used	Fuel Cost	Non Fuel Expenses	KWH Gen	KWH Sold Total	kWh gen/gal	kWh sold/gal	Average KW Load
2001	July	3043	$3,804	$10,835	35980	31709	**11.8**	**10.4**	48.4
	August	3423	$4,279	$17,637	40320	33802	**11.8**	**9.9**	54.2
	September	3760	$4,701	$4,701	41440	35542	**11.0**	**9.5**	57.6
	October	3848	$4,810	$12,048	47800	41331	**12.4**	**10.7**	64.2
	November	4555	$9,230	$20,455	48860	42938	**10.7**	**9.4**	67.9
	December	4908	$10,699	$16,260	57540	48075	**11.7**	**9.8**	77.3
	January	2979	$6,494	$18,058	45920	39715	**15.4**	**13.3**	61.7
	February	4122	$8,988	$17,799	44940	39509	**10.9**	**9.6**	66.9
	March	4867	$10,611	$12,678	45660	45660	**9.4**	**9.4**	61.4
	April	3998	$8,715	$16,139	46480	42672	**11.6**	**10.7**	64.6
	May	4992	$10,882	$13,098	42000	37509	**8.4**	**7.5**	56.5
	June	2701	$5,887	$18,880	30800	39895	**11.4**	**14.8**	42.8
		47,196	**$89,100**	**$178,589**	**527,740**	**478,357**	**11.2**	**10.1**	**60.3**
2002	July	6639	$11,287	$5,432	26880	22744	**4.0**	**3.4**	36.1
	August	4679	$7,954	$5,432	34020	29895	**7.3**	**6.4**	45.7
	September	3395	$5,773	$5,432	36260	32299	**10.7**	**9.5**	50.4
	October	3275	$5,568	$9,304	42000	36417	**12.8**	**11.1**	56.5
	November	3908	$6,644	$9,304	48020	42304	**12.3**	**10.8**	66.7
	December	4002	$6,303	$8,332	49560	46794	**12.4**	**11.7**	66.6
	January	3888	$6,609	$8,332	43260	37425	**11.1**	**9.6**	58.1
	February	4311	$7,329	$8,332	42420	38064	**9.8**	**8.8**	63.1
	March	3736	$6,352	$8,332	43680	37483	**11.7**	**10.0**	58.7
	April	3212	$5,460	$8,332	40180	36143	**12.5**	**11.3**	55.8
	May	3202	$4,676	$8,332	35980	32754	**11.2**	**10.2**	48.4
	June	2430	$3,548	$8,334	41860	21887	**17.2**	**9.0**	58.1
		46,677	**$77,503**	**$93,231**	**484,120**	**414,209**	**10.4**	**8.9**	**55.4**
2003	July	2459	$3,590	$6,811	26056	21469	**10.6**	**8.7**	35.0
	August	2956	$4,316	$10,827	30800	26233	**10.4**	**8.9**	41.4
	September	2895	$4,227	$9,231	35402	28967	**12.2**	**10.0**	49.2
	October	3303	$4,822	$9,231	36164	33045	**10.9**	**10.0**	48.6
	November	3234	$4,722	$9,231	39480	32069	**12.2**	**9.9**	54.8
	December	3661	$5,345	$11,557	46894	38729	**12.8**	**10.6**	63.0
	January	2925	$5,731	$6,136	48438	41528	**16.6**	**14.2**	65.1
	February	2874	$4,196	$4,989	47600	30059	**16.6**	**10.5**	70.8
	March	3554	$5,189	$5,587	44348	35754	**12.5**	**10.1**	59.6
	April	3218	$4,698	$9,739	36680	32631	**11.4**	**10.1**	50.9
	May	3021	$4,411	$7,571	18200	17595	**6.0**	**5.8**	24.5
2003	June	2344	$3,422	$7,368	25760	18048	**11.0**	**7.7**	35.8
		36,444	**$54,668**	**$98,277**	**435,822**	**356,127**	**12.0**	**9.8**	**49.9**

Levelock Power Plant Operator Log Data
Calculated Weekly Peak and Min kW



Levelock Power Plant Operator Log Data

Week Beginning Date	Time of Peak Reading	Peak Weekly Phase1 Amps	Peak Weekly Phase2 Amps	Peak Weekly Phase3 Amps	Calc Peak Generator KW (480V)	Time of Min Reading	Min Weekly Phase1 Amps	Min Weekly Phase2 Amps	Min Weekly Phase3 Amps	Calc Min Generator KW (480V)
6/2/03	1:30 PM	60	55	52	46	9:45 AM	25	20	15	17
6/9/03	1:00 PM	55	60	60	48	1:30 PM	35	40	30	29
7/21/03	1:45 AM	30	25	32	24	10:00 PM	15	20	15	14
8/4/03	12:30 PM	45	40	45	36	12:00 PM	20	20	20	17
8/25/03	12:00 PM	85	60	60	57	8:30 AM	25	25	25	21
9/1/03	8:30 AM	85	80	80	68	8:30 AM	30	28	28	24
9/8/03	9:35 AM	93	95	70	71	2:30 PM	48	49	49	40
9/15/03	1:28 PM	110	98	85	81	9:00 AM	48	47	40	37
9/29/03	6:45 PM	100	90	70	72	12:00 PM	40	40	40	33
10/6/03	8:30 AM	76	55	70	56	10:00 AM	50	30	40	33
10/13/03	8:30 AM	90	80	65	65	4:00 PM	48	40	42	36
10/20/03	7:00 PM	100	90	80	75	5:45 PM	60	60	60	50
10/27/03	7:00 PM	110	100	70	78	12:00 PM	70	50	60	50
11/3/03	9:00 AM	110	90	85	79	3:00 PM	75	50	50	48
11/10/03	8:19 AM	100	79	82	72	1:46 PM	70	65	60	54
11/17/03	12:30 PM	105	90	95	80	12:00 PM	70	50	60	50
11/24/03	12:30 PM	109	95	80	79	12:00 PM	60	60	70	53
12/1/03	3:19 PM	119	90	120	91	10:27 AM	51	49	45	40
12/8/03	9:45 AM	105	85	100	80	2:24 PM	40	30	35	29
12/15/03	5:30 PM	100	90	90	78	12:00 PM	60	40	55	43
12/22/03	12:15 PM	110	95	105	86	12:45 PM	65	75	55	54
12/29/03	8:00 PM	95	85	80	72	12:00 PM	80	70	50	55
1/5/04	8:45 AM	145	115	95	98	12:15 PM	85	70	65	61
1/12/04	6:00 PM	105	90	80	76	12:15 PM	80	60	80	61
1/19/04	10:15 AM	108	95	95	82	1:15 PM	75	60	80	60
1/26/04	8:30 PM	100	90	82	75	5:40 PM	75	65	70	58
2/2/04	1:30 PM	99	85	67	69	12:30 PM	55	47	40	39
2/9/04	12:00 PM	100	85	75	72	6:00 PM	40	40	50	36
2/16/04	12:00 PM	105	90	90	79	12:00 PM	50	50	50	42
2/23/04	12:00 PM	99	82	92	76	12:00 PM	52	50	49	42
3/1/04	12:00 PM	92	80	90	73	2:30 PM	60	50	57	46
3/8/04	12:00 PM	100	85	80	73	6:00 PM	65	60	60	51
3/15/04	12:15 PM	90	80	95	73	8:30 AM	65	55	60	50
3/22/04	3:00 PM	102	89	68	72	8:30 PM	68	66	63	55
3/29/04	9:00 AM	110	95	105	86	8:00 AM	70	62	65	55
4/5/04	6:00 PM	100	95	70	73	12:30 PM	65	55	60	50
4/12/04	12:00 PM	80	75	75	64	6:45 PM	55	50	50	43
4/19/04	1:00 PM	85	70	72	63	12:30 PM	55	48	50	42
4/26/04	3:30 PM	82	90	65	66	1:00 PM	50	48	49	41
5/3/04	12:15 PM	100	95	70	73	8:30 AM	60	55	55	47
5/17/04	8:30 AM	78	80	63	61	9:30 AM	50	45	45	39
5/24/04	9:25 PM	75	55	60	53	3:45 PM	48	20	32	28
5/31/04	6:00 PM	80	70	40	53	8:30 AM	20	20	20	17
6/7/04	12:00 PM	60	62	60	50	8:15 AM	20	20	20	17
6/14/04	12:30 PM	35	42	57	37	12:00 PM	35	30	32	27
6/21/04	9:40 AM	70	60	65	54	10:30 AM	35	32	30	27
6/28/04	12:00 PM	55	55	25	37	8:00 AM	20	20	20	17
7/5/04	6:45 PM	42	42	32	32	8:00 AM	20	20	20	17
7/12/04	12:00 PM	78	60	60	55	8:00 AM	32	30	30	25
7/19/04	12:00 PM	80	79	80	66	11:00 AM	52	50	25	35
7/26/04	12:00 PM	60	60	45	46	8:00 AM	30	25	20	21
8/2/04	6:00 PM	65	45	55	46	8:00 AM	20	20	20	17
8/9/04	1:00 PM	61	43	52	43	10:40 AM	55	48	49	42
8/16/04	8:30 AM	65	50	57	48	9:00 AM	40	45	43	35
8/23/04	12:00 PM	38	40	38	32	8:00 AM	20	20	20	17
8/30/04	12:00 PM	45	38	60	40	8:45 AM	20	20	20	17
9/6/04	9:35 AM	72	70	65	57	1:00 PM	25	20	23	19